



Smart Snack Choices

Protein, minerals, vitamins, and nutraceuticals make snacks healthier— for our kids' sakes



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It’s been at least a generation since having a snack was considered a treat—a nice break from the “three squares a day” Americans see as mandatory. Most kids ate a snack immediately upon coming home from school. Younger kids received snacks to keep them occupied between playtime and naptime. Kids still snack, of course, but there is a difference between how they snack nowadays and how their parents did in the past.

Today, some 75% of kids aged 2-19 snack multiple times per day. There is a disturbing trend among children, however: About a third of children are snacking at least four times daily – meaning they’re having more snacks than meals. And, in many of those cases, they’re not snacking “again”—they’re snacking “still”—eating almost constantly, making it difficult to tell when one eating occasion finishes and the next one starts.

It leaves little wonder as to why, despite a very recent plateau, childhood obesity rates rose steadily from the 1990s through 2014, according to a CDC report.

The report also noted the rate of morbid obesity among teens rose from 6% in 1999 to about 10% in 2014. Data from the most recent NHANES survey on nutrition and health reveal that a third of children in that aforementioned 2-19 age group are overweight, and 17% qualify as obese.

All this eating is causing some nutritionists and registered dietitians to worry. If snacks are still seen as a treat—a break from the usual good, solid, balanced nutrition traditionally provided by meals—and kids are having more such breaks, then snacking isn’t a treat anymore. It’s a part of a

normal, daily lifestyle. As such, snacks need to count nutritionally. They also need to provide taste and enjoyment. The producer who can hit that trifecta has a winner.

Making Snacks Count

The 2016 US Dietary Guidelines for America (DGA) recommend a number of “eating styles” as appropriate, but the DGA also tallies up what Americans are missing most from their diets. The experts involved cite several “nutrients of concern,” so-called because at least half of Americans fail to get enough of these from their diets.

The following nutrients have been called out as deficient by the DGA: calcium, potassium, vitamin D, fiber, and magnesium. As for whole food groups noted to be lacking, there was, unfortunately, nothing new. Fruits, vegetables, low-fat dairy, and whole-grain items just don’t play as big a part on the daily menu as is necessary for peak health. Moreover, the problem is especially acute among children.

Consumers usually have heard of the Guidelines, but the information is not necessarily top-of-mind when making snacking decisions. Although children are active in making their own food choices, noise from a constant stream of ads on TV and social media platforms make decisions daunting. When in a hurry, such kids’ decisions often fall back to sweets or other low-nutrition options.

While health is an increasing consideration, calories aren’t always a primary focus. However—and this is where manufacturers can have a profound influence—healthful serving sizes can bring the element of caloric control back to the table.

But, while calories still matter, the quality of calories matters more. High-calorie ingredients are fine, but they need to have a strong health component that provides satiety, in order to keep total caloric intake for the day at a healthful level. Foods and ingredients closer to those Mother Nature provides—read “clean label” foods—have grabbed consumer attention in rapidly increasing numbers.

Nuts of any kind, olive oil, dried fruits and vegetables, whole grains like oats —such items are trusted and becoming more attractive to parents. And, once introduced to these ingredients, most children find they can enjoy such “simple, honest” products just as much (or more) as less healthful choices.

A 2014 study in the *Journal of the American College of Nutrition* found consumers don’t always stop eating when they’re full. One of the main reasons consumers stop eating is because the food is gone. “Portioning out snacks in healthful sizes can be a good tool for learning about healthful portion sizes, especially when preparing child-targeted snacks,” says Marianne Edge, MS, RDN, co-author of the study and senior advisor of science and consumer insights for the International Food Information Council (IFIC).

Edge cites small, 1oz packs of almonds or other nuts as perfect examples, as are individual portions of real cheese, like Bel Brands USA’s Mini Babybel. Adults like the portion sizes, as well, because they let consumers manage calories without guesswork.

Making Better Snacks

While such simple snacks as portioned fruits and nuts can be creatively designed, using various flavor components and nutritional enhancements (i.e., yogurt-covered raisins with active probiotics, or almonds lightly dusted with cocoa), processed snacks still are key players in the world of the quick bite.

Ideally speaking, one to two servings of vegetables would be the “perfect” healthy snack. But place a bowl of raw broccoli in front of a child, and one is likely to get a look of confusion, if not out-and-out rejection. One of the more successful approaches by snack makers has been to transform the ingredients children should be eating into the snacks they want to eat. Also important: doing so while calling for very little parental preparation.

Peas of Mind is a healthy frozen snack company geared towards picky eaters, enticing younger children to eat their daily servings of veggies under the guise of classic “kid food” items. This includes products, such as fat-free

baked “French fries,” that are made from cauliflower, broccoli, and carrots, as well as pizzas with ground vegetables in the crust.

In a similar vein, the company’s newest snack food, the ‘Tot, already has found national success in high-end foodservice outlets (such as children’s museums), due to its similarity to the classic tater tot. The three flavors, Broccotot, Carrotot, and Caulitot, bake up crispy on the outside and creamy on the inside, just like standard tater tots, but they contain 50% non-potato vegetables. Also, each serving provides one whole serving of vegetables.

The company’s smoothie kits are another recent development to its lineup. The kits contain naturally flavored fruits and vegetables flavored to taste like classic milkshakes.

Peas of Mind has a specific research and development process. The first phase of R&D begins with a computer, not in the kitchen. The goal for each item is guided according to servings of vegetables, so formulations are roughed out first to meet USDA guidelines. Then, specific guidelines for the US public school system are created. Once those are set, the formula can be fully created.

After an initial recipe is developed, it is put to the test in a home kitchen, using straight-forward ingredients. The primary objective is then to achieve a wholesome and natural product, similar to what a parent might make from scratch.

Keeping the process simple in the kitchen doesn’t necessarily make it easier when a co-packer comes aboard for the scale-up process. For example, developing its tot products presented the Peas of Mind team with some challenges at the factory level.

The most important challenge was having the product stay crispy during the cooling process. The team discovered adding brown rice flour to the formula helped the product maintain its crispy texture at all temperatures. And, most importantly, brown rice flour was in alignment with the company’s natural and gluten-free ingredient list.

Snacks for Breakfast

For growing children, breakfast has never lost status as the most important meal of the day. This is supported by recent research demonstrating that eating breakfast every day gives school children significant academic advantages; is the foundation of better diets overall; and even promotes maintaining healthier weight. But, too many kids are still skipping breakfast, too often. This is especially dire when it is understood that these children typically do not make up those nutrient deficits at other times.

This begs the question: Can breakfast be a snack? While a snack food can definitely be eaten for breakfast, poor health is only compounded if that snack is not a good one. When developing a hand-held, out-the-door breakfast snack, the key for product designers is to make protein and satiety the main objectives.

Protein and satiety (whether from said protein or other ingredients) are big players in weight control, and thus have a significant position when it comes to snacks—including any snack food that wants to do duty as a breakfast food. Most kids do get enough protein, but they often do not get it early enough in the day. That's an important time to get protein, because eating a protein-strong breakfast helps the child feel full throughout the morning.

Some studies suggest 20-30g of good-quality protein are needed to help control hunger and provide satiety. That much protein is a lot for younger children and difficult to get into a snack food, but that amount doesn't all have to be in a single item. Snacks that have good-quality protein—from dairy, eggs, meat, or legumes—have been shown to provide a real edge in making up the portion used in a typical snack.

Hip Chick Farms LLC created an exemplary, kid-friendly and breakfast-suitable snack with its natural and organic chicken fingers, meatball, and nugget products. Serafina Pallendech, the company's founder, explains, "Not only do all Hip Chick Farms products contain between 14-20g protein per serving, they also are free of preservatives, antibiotics, hormones, and fillers." Use of natural and organic ingredients follows the company's goal of high quality and full transparency in sourcing its ingredients and for its products in general.

In 2012, Consumer Reports conducted a nationwide survey of 1,000 US residents and found 72% of consumers are “very concerned” about the widespread use of antibiotics. It also was revealed that antibiotic-free meat sales had risen 25% over the three prior years. The trend towards natural, organic, and antibiotic-free meat is still strong, but sourcing such ingredients can still present difficulties.

“There still are few farmers raising organic, free-range chicken,” explains Pallendeck. “We consistently are seeking to expand our sourcing base, while ensuring that our suppliers meet our strict standards.”

In order to verify that claims made by their suppliers are true, Hip Chick Farms requires a third-party certification. The company also builds strong, long-term relationships with its suppliers, including during its expansion efforts.

Comforting Combos

Most parents agree that getting enough fruits and vegetables into their kids is the bane of their existence. Brian Wansink, PhD, a nutritional behaviorist at Cornell University, has shown that kids who are given cut vegetables will eat more of them—if they also get some cheese.

Since both foods are excellent nutritionally for kids, together providing calcium, potassium, and fiber, finding ingenious ways of combining them will go a long way towards cleaning up kids’ diets. Depending on their age, 60-90% of kids are lacking calcium and vitamin D in their diets. Including dairy foods like milk, cheese, and yogurt for snacks with fruits and vegetables is a solid nutritional “two-fer.”

Beans, especially, are great ingredients in combo snacks. There now are many forms that have proven well-accepted by kids. Bean-based chips are extra popular substitutes for potato chips. And schools across the country are putting hummus snacks on their menus; these have been met with unprecedented success.

Snack foods that include various beans of any texture, from puréed to crunchy, are nutritional winners, especially when combined with vegetable-based chips. Beans are high in protein and, thus, promote satiety. They are also naturally loaded with fiber, protein, iron, and other minerals and vitamins. Chips, hummus, or crackers are all avenues for getting legumes into kids and can help fill the gaps on those nutrients.

Gilding the Lily

While plant-based foods are excellent sources of the vitamins, minerals, and other nutrients children need most, for the highly active youth loaded down with homework and extracurricular activities, sometimes nature needs a little help. Fortification is an excellent way to ensure children are eating the nutrients and micronutrients their growing bodies need.

Building up a product with vitamins, minerals, and other nutrients puts worried parents at ease; a parent can look at the nutrition panel on the back of a package and see exact percentages of what their child is getting that day. Custom pre-mixes can be a special boon here for getting just the right nutrient balance per serving, for the right age of young consumer.

Bowman Andros Products LLC's Fruit Me Up on-the-go fruit pouches for kids are real fruit given a boost of nutrients just for kids. Hence their name, BOOST.

“BOOST products are each able to provide their own unique benefits that include good sources of calcium, fiber, omega-3 as alpha-linolenic acid, and antioxidants from real superfruits,” says Caroline McTier, R&D manager for the company. She adds that each BOOST product is designed to be “a delicious way to achieve specific nutritional needs” for kids.

Healthy snack foods, like enhanced fruits, allow a parent to customize their child's snack menu based on the child's activity level and specific diet. McTier explains that the development team calculates the correct amount of the “boosted” ingredients for the younger consumer by ensuring each product contains at least a “good source” claim, per FDA regulation, of each added nutrient, depending on the requirements for each ingredient.

Similarly, Little Duck Organics Inc.'s Tiny Gummies line is made from 100% pure fruit purees with added probiotics in the form of *Bacillus coagulans* GBI-30, 6086. The company also sources a variety of premium superfruits, including açai, goji berries, and pomegranate, recognizing that youngsters have the palates to appreciate a greater spectrum of fruit flavors than just bananas, apples, strawberries, and grapes.

Each serving of Little Ducks' gummies contains 1 billion probiotic cultures. The company also cites research that indicates "...86% of parents are more likely to purchase a product for their children, if it is fortified with a probiotic." This chosen probiotic source is especially well-suited to survive in the pectin gelling agent, at a level about 10 times more effective than yogurt cultures.

Grains of Flavor

Probiotic cultures add the healthy bacteria, in active cultures, to help enhance and regulate the body's digestive health and immune capacity. But even good bugs "gotta eat." Prebiotics, specifically fiber, provide meals for and help grow those healthy bacteria.

With kids, regular food sources of both can ramp up the quality of their diets. Beyond active cultures, however, there are plenty of taste and nutritional reasons for kids to eat probiotic foods like yogurt. Greek yogurt, for example, has twice the protein of other yogurt, and adding it to any smoothie automatically gives kids a high-protein drink.

Nothing is nutritious until it's eaten, and it's not eaten unless it tastes good. This is true for adults and even more so for kids. But kids' tastes have evolved. Today's children are exposed to more ethnic food cultures and open to more global flavors. Hot and spicy need not be the rule, but tamer amounts and varieties of herbs and spices can turn a "no" food into a "yes" food.

One big example where this paradigm plays big is with whole-grain snacks. Since the average intake of whole grains is still less than one serving daily, any snack food that increases that statistic has bragging rights. Adding kid-

friendly amounts of spices to both savory and sweet whole-grain snacks makes sense, because they add no calories or weight, leaving more room for more whole grains.

Consumers increasingly are tuned in to looking for whole grains on ingredient labels. Snack producers, such as Bitsy's Brain Food LLC, work toward ensuring that the whole grains end up first on the ingredient list.

"Smart snacks are baked with whole grains and vegetables and are nutritionally formulated to support children's growing brains and bodies," says Alexandra Voris, co-founder of Bitsy's. "We fortify our products with vitamins A, B12, B6, D3, and folic acid."

Voris says fortifying food without preservatives "is a tricky business, and there have been challenges along the way, mainly in terms of finding the right vitamin and mineral levels and assessing their reactions to heat and other processing stresses."

Voris also notes that enticing the company's younger consumers isn't all about taste. Visuals are well-known to be crucial, so all of their products are baked in shapes that encourage education and learning to engage little ones while they snack.

Bitsy's also utilizes marketing and packaging to influence children to not only eat their vegetables, but to enjoy doing so. "Our goal is to demystify veggies for kids by using positive associations, as well as encouraging kids to have positive flavor associations with such ingredients as zucchini, sweet potatoes, spinach, and beets," she stresses.

No matter how you slice it, children want snacks and parents want those snacks to be nutritionally dense. This is why the best snack foods are developed to hit all those marks, without losing sight of the need to simply taste great. In that regard, processors are able to tap into a wealth of new and emerging ingredient science and support to create tomorrow's snacks for today's kids.

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Natural, Organic Options



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